

Attorney's Docket No.: 06816-044003

REMARKS

Applicants respectfully ask the patent office to reconsider and allow the application. As an initial matter, Applicants acknowledge the examiner's detailed analysis and comments in the office action.

Claim 26 has been newly added. Claims 1-26 are pending after entry of the above amendment. Claims 1-6 and 26 are under examination. Claims 7-25 are withdrawn from consideration but remain pending.

Claims 1-6 stand rejected under 35 USC 112, second paragraph, as being indefinite (Item 8, pages 6-7). Applicants respectfully traverse. Claim 1 recites at least two steps to "increase a surface area of the catalyst material compared to the catalyst material prior to introducing and removing the substance." First, a substance is introduced in the catalyst material and is insoluble in the catalyst material. Second, the insoluble substance is subsequently removed. These two steps in combination create voids in spaces where the insoluble substance occupies prior to the removal. These voids effectuate the increase in the surface area of the catalyst material.

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Therefore, Claim 1 as written is definite because it particularly points out and distinctly claims the invention. Based on the above argument, Claims 2-6 are also definite.

Claims 1-6 stand rejected under 35 USC 112, first paragraph, as failing to comply with the enablement requirement (Item 5, pages 2-6). This contention, however, is respectfully traversed.

The Office Action contends that the original specification does not disclose what non-ionic surfactants are or at what high temperature the non-ionic surfactant is removed without destroying the catalyst material. Non-ionic surfactants and their properties are well known and well documented in the art. As an example, Triton X-100 is a non-ionic surfactant and can be leached out near 300 °C. As another example, various camphors may also be used as non-ionic surfactant and can be leached out at low temperatures from about 100 °C to about 200 °C. Hence, a person skilled in the art can readily select a suitable known non-ionic surfactant for practicing the claimed invention from known non-ionic surfactants based on their known properties without undue experimentation. It is well established that a patent need not teach, and preferably omits, what is well known in the art. MPEP 2164.01. As such, the original specification meets the enablement requirement and therefore Claims 1-6 are patentable.

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The paragraph [0069] also discloses an alternative to the use of non-ionic surfactants, i.e., using a volatile metal such as zinc, aluminum, or tin in the catalyst to increase the surface area. This aspect is now particularly described and distinctly claimed in the new Claim 26. The process of removing a volatile metal at a higher temperature is used here to increase the surface area of the final catalyst material.

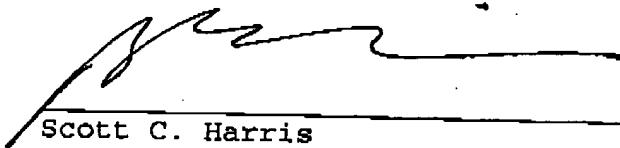
Claims 1-6 further stand rejected under 35 USC 112, first paragraph, as failing to comply with the written description requirement (Item 6, pages 6-7). In this regard, the Office Action distinguishes "catalyst" and "catalyst material" in the rejections. In the present application, a mixture material is used to form the catalyst material and is ultimately produced and used in the fuel cell. Hence, the term "catalyst material" in the claims is fully supported by the term "catalyst" in the specification, including the text in paragraph [0069]. Claims 1-6 are therefore patentable. Applicants respectfully request that the rejections on this ground be withdrawn.

In view of the above, all rejections should be withdrawn and Claims 1-6 and 26 are patentable. Please apply the \$420 two

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month extension of time fee, and any other applicable charges or credits, to Deposit Account No. 06-1050.

Respectfully submitted,



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